

OXYGEN SENSOR AND PRODUCTION THEREOF AND METHOD FOR PREVENTING POISONING

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Abstract of JP2276956

PURPOSE: To prevent the deterioration in the characteristics of the oxygen sensor by a gaseous or superfine particulate silicon compd. by sticking at least one kind of oxides of Mg, Ca, Sr, and Ba onto the surface or into pores of a protective layer. CONSTITUTION: The oxygen sensor is constituted of a blind cylindrical body 1 forming the partition wall of an oxygen ion conductive solid electrolyte, a reference electrode 2 and measuring electrode 3 provided in contact therewith and the protective layer 4 on the measuring electrode 3. The protective layer 4 is formed by sticking at least one kind among the oxides of the Mg, Ca, Sr, and Ba onto the surface or into the pores thereof. Stabilized or partially stabilized zirconia materials formed by compounding prescribed stabilizers, for example, yttria, calcia, magnesia, etc., with zirconia in particular are used as the solid electrolyte material. A pressure molding method, such as rubber press method, is adopted to form the above-mentioned material to the cylindrical body 1. Palladium catalyst metals, such as platinum, rhodium and palladium are used as the electrode material and plasma thermally sprayed layers, such as alumina and spinel are used as the protective layer 4.

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